## ABSTRACT OF THE DISCLOSURE

The torque sensor outputs a signal from a first detector which corresponds to the rotation angle of a first shaft, as a first alternating signal the phase of which changes in accordance with this change in the rotation angle, via a resistance and a capacitor which function as a low-pass filter and a high-pass filter. A signal is output from a second detector corresponding to the change in the rotation angle of a second shaft capable of performing relative rotation, elastically, with respect to the first shaft, as a second alternating signal, the phase of which changes in accordance with the change in the rotation angle, via a resistance and a capacitor which function as a low-pass filter and high-pass filter. A value corresponding to the torque transmitted by the first and second shafts is determined from a phase difference correspondence signal the waveform of which changes in accordance with change in the phase difference between the first alternating signal and the second alternating signal.

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